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### (54) PORTABLE TWO-WHEELED SELF-BALANCING PERSONAL TRANSPORT **VEHICLE**

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#### (57)ABSTRACT

A portable two-wheeled self-balancing personal transport vehicle comprises a single support platform having first and second foot placement sections, one or more inertial sensors operable to provide pitch data for the platform. The first foot placement section and the second foot placement section are associated with a first wheel and a second wheel respectively controlled by a first and a second drive motor. At least one load sensor provides first load data for the first foot placement section and at least one load sensor provides second load data for the second foot placement section. Control circuitry is connected to the first and second drive motors, and operable to transmit to the first and second drive motors balancing signals for self-balancing the support platform housing in response to the pitch data, as well as one or more steering torque signals in response to the first and second load data.

